

Sergey S Kruk

List of Publications by Year in descending order

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114
papers

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126708

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114
docs citations

114
times ranked

3863
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Harmonic Generation from Resonant Dielectric Metasurfaces Empowered by Bound States in the Continuum. ACS Photonics, 2022, 9, 567-574.	3.2	84
2	Enhanced Five-Photon Photoluminescence in Subwavelength AlGaAs Resonators. Nano Letters, 2022, 22, 4200-4206.	4.5	5
3	Asymmetric parametric generation of images with nonlinear dielectric metasurfaces. Nature Photonics, 2022, 16, 561-565.	15.6	45
4	Topology-empowered membrane devices for terahertz photonics. Advanced Photonics, 2022, 4, .	6.2	13
5	Third-harmonic generation enhanced by topological corner states in valley-Hall dielectric metasurfaces. , 2021, , .		0
6	Topology-controlled Polarized Photoluminescence from Rare-earth Doped Nanocrystals. , 2021, , .		0
7	Fano Resonances in Individual Dielectric Nanoantennas. , 2021, , .		0
8	Nonlinear metasurfaces with asymmetric light generation. , 2021, , .		0
9	From Fano to Quasi-BIC Resonances in Individual Dielectric Nanoantennas. Nano Letters, 2021, 21, 1765-1771.	4.5	96
10	Tunable Mie-Resonant Dielectric Metasurfaces Based on VO ₂ Phase-Transition Materials. ACS Photonics, 2021, 8, 1206-1213.	3.2	80
11	Silicon metasurfaces with bound states in the continuum for high-harmonic generation. , 2021, , .		0
12	Nonlinear Imaging of Nanoscale Topological Corner States. Nano Letters, 2021, 21, 4592-4597.	4.5	51
13	Generation of High Harmonics in Silicon Metasurfaces Boosted by Bound States in the Continuum. , 2021, , .		0
14	Resonant dielectric metasurfaces in strong optical fields. APL Materials, 2021, 9, 060701.	2.2	23
15	Lasing Action from Anapole Metasurfaces. Nano Letters, 2021, 21, 6563-6568.	4.5	43
16	Dielectric metasurfaces with asymmetric generation of nonlinear images. , 2021, , .		0
17	Mid-infrared cylindrical vector beams enabled by dielectric metasurfaces. APL Materials, 2021, 9, .	2.2	7
18	Mie-Resonant Membrane Huygens' Metasurfaces. Advanced Functional Materials, 2020, 30, 1906851.	7.8	52

#	ARTICLE	IF	CITATIONS
19	Tailoring transmission and reflection with metasurfaces. , 2020, , 145-174.		10
20	Room-temperature lasing from nanophotonic topological cavities. Light: Science and Applications, 2020, 9, 127.	7.7	74
21	Polarization-sensitive Dielectric Membrane Metasurfaces. Advanced Optical Materials, 2020, 8, 2000555.	3.6	24
22	Nonlinear Imaging with All-Dielectric Metasurfaces. Nano Letters, 2020, 20, 4370-4376.	4.5	91
23	Subwavelength dielectric resonators for nonlinear nanophotonics. Science, 2020, 367, 288-292.	6.0	575
24	Fabrication of halide-perovskite resonant microcylinders by nanoimprint lithography. Journal of Physics: Conference Series, 2020, 1461, 012178.	0.3	0
25	Topological states in disordered arrays of dielectric nanoparticles. Physical Review Research, 2020, 2, .	1.3	9
26	High-Harmonic Generation in Dielectric Metasurfaces Empowered by Bound States in the Continuum. , 2020, , .		5
27	Topological nanophotonics for photoluminescence control. Nanophotonics, 2020, 10, 435-441.	2.9	16
28	Observation of highly efficient second-harmonic generation at the nanoscale driven by bound states in the continuum. , 2020, , .		0
29	Observation of Quasi-BIC Modes and Fano Resonances in Individual Subwavelength Dielectric Resonators. , 2020, , .		0
30	Observation of Supercavity Modes in Individual Subwavelength Dielectric Resonators. , 2020, , .		0
31	Efficient High-order Optical Harmonics Generation from Resonant Semiconductor Metasurfaces Supporting Bound States in the Continuum. , 2020, , .		0
32	Observation of nonlinear topological corner states. , 2020, , .		0
33	Fano resonances in individual AlGaAs nanoparticles driven by quasi-BIC modes. , 2020, , .		0
34	Membrane Metasurfaces. , 2020, , .		0
35	Room-Temperature Lasing from Topological Cavities. , 2020, , .		0
36	Tunable Mie-resonant dielectric metasurfaces based on VO2 phase-change materials. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
37	Bound States in the Continuum for Enhanced Generation of High Optical Harmonics. , 2020, , .		1
38	Nonlinear optics with nanoscale topological corner states. , 2020, , .		0
39	Third-Harmonic Generation in Photonic Topological Metasurfaces. Physical Review Letters, 2019, 123, 103901.	2.9	144
40	Enhanced Second-Harmonic Generation with Structured Light in AlGaAs Nanoparticles Governed by Magnetic Response. JETP Letters, 2019, 109, 131-135.	0.4	15
41	Dielectric Broadband Metasurfaces for Fiber Mode Multiplexed Communications. Advanced Optical Materials, 2019, 7, 1801679.	3.6	20
42	Nonlinear light generation in topological nanostructures. Nature Nanotechnology, 2019, 14, 126-130.	15.6	187
43	High-harmonic generation at the nanoscale boosted by bound states in the continuum. Physical Review Research, 2019, 1, .	1.3	95
44	Disorder-Robust Nonlinear Light Generation in Topological Nanostructures. , 2019, , .		1
45	Photosensitive chalcogenide metasurfaces supporting bound states in the continuum. Optics Express, 2019, 27, 33847.	1.7	39
46	Structured Light for Second-Harmonic Spectroscopy in Mie-Resonant AlGaAs Nanoparticles. , 2019, , .		0
47	Observation of Extraordinary SHG from All-Dielectric Nanoantennas Governed by Bound States in the Continuum. , 2019, , .		1
48	Nonlinear Imaging of Topological Edge States in Dielectric Metasurfaces. , 2019, , .		0
49	Dielectric Membrane Mie-Resonant Metasurfaces. , 2019, , .		0
50	Nonlinear dielectric metalenses: imaging and higher-order correlations. , 2019, , .		0
51	Second-harmonic spectroscopy with structured beams and the observation of quasi-BIC modes in all-dielectric nanoresonators. , 2019, , .		0
52	Selective Third-Harmonic Generation by Structured Light in Mie-Resonant Nanoparticles. ACS Photonics, 2018, 5, 728-733.	3.2	87
53	Correction to "Functional Meta-Optics and Nanophotonics Govern by Mie Resonances" ACS Photonics, 2018, 5, 670-670.	3.2	1
54	Quantum metasurface for multiphoton interference and state reconstruction. Science, 2018, 361, 1104-1108.	6.0	227

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55	Nonlinear Wavefront Control with All-Dielectric Metasurfaces. Nano Letters, 2018, 18, 3978-3984.	4.5	180
56	Transparent Dielectric Metasurfaces for Spatial Mode Multiplexing. Laser and Photonics Reviews, 2018, 12, 1800031.	4.4	37
57	Nonlinear Unidirectional Topological States in Zigzag Arrays of Bianisotropic Dielectric Nanoparticles. , 2018, , .		0
58	Dielectric Metasurfaces for Optical Communications and Spatial Division Multiplexing. , 2018, , .		2
59	Nonlinear Dielectric Metasurfaces for Wavefront Control. , 2018, , .		0
60	Structured Light for Selective Third-Harmonic Generation in Subwavelength Resonators. , 2018, , .		0
61	All-dielectric metasurfaces for measuring multi-photon quantum-polarization states (Conference) Tj ETQq1 1 0.784314 rgBT 6 Overlock 1		0
62	Shaping the third-harmonic radiation from silicon nanodimers. Nanoscale, 2017, 9, 2201-2206.	2.8	50
63	Edge States and Topological Phase Transitions in Chains of Dielectric Nanoparticles. Small, 2017, 13, 1603190.	5.2	77
64	Nonlinear Optical Magnetism Revealed by Second-Harmonic Generation in Nanoantennas. Nano Letters, 2017, 17, 3914-3918.	4.5	100
65	Terahertz chiral structures with large optical activity (Conference Presentation). , 2017, , .		0
66	Functional Meta-Optics and Nanophotonics Governed by Mie Resonances. ACS Photonics, 2017, 4, 2638-2649.	3.2	467
67	Strong Broadband Terahertz Optical Activity through Control of the Blaschke Phase with Chiral Metasurfaces. Physical Review Applied, 2017, 8, .	1.5	16
68	Reversible Thermal Tuning of All-Dielectric Metasurfaces. Advanced Functional Materials, 2017, 27, 1700580.	7.8	146
69	Giant enhancement and control of second-harmonic radiation from AlGaAs nanoantennas. , 2017, , .		0
70	Highest efficiency grayscale all-dielectric meta-holograms. , 2017, , .		0
71	Nonlinear mirror with all-dielectric metasurface. , 2017, , .		2
72	Quantum polarization tomography with all-dielectric metasurfaces. , 2017, , .		0

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73	Quantum imaging with dielectric metasurfaces for multi-photon polarization tomography. , 2017, , .		2
74	Third-Harmonic Generation from Photonic Topological States in Zigzag Arrays of Silicon Nanodisks. , 2017, , .		2
75	Quantum tomography with all-dielectric metasurfaces. , 2017, , .		1
76	Magnetic vs Electric Second-Harmonic Generation from AlGaAs Nanoantennas. , 2017, , .		0
77	Broadband transparent all-dielectric metasurfaces. , 2017, , .		0
78	Directional second harmonic generation from AlGaAs nanoantennas (Conference Presentation). , 2017, , .		0
79	All-dielectric transparent metasurfaces for holography and quantum tomography (Conference) Tj ETQq1 1 0.784314 rgBT /Oygerlock 10		0
80	Nonlinear frequency conversion with all-dielectric nanoantennas (Conference Presentation). , 2017, , .		0
81	Grayscale transparent metasurface holograms. Optica, 2016, 3, 1504.	4.8	290
82	Recent advances in metasurfaces and all-dielectric nanophotonics (Conference Presentation). , 2016, , .		0
83	Near-field surface plasmons on quasicrystal metasurfaces. Scientific Reports, 2016, 6, 26.	1.6	27
84	Invited Article: Broadband highly efficient dielectric metadevices for polarization control. APL Photonics, 2016, 1, .	3.0	320
85	Nonlinear Generation of Vector Beams From AlGaAs Nanoantennas. Nano Letters, 2016, 16, 7191-7197.	4.5	237
86	Magnetic hyperbolic optical metamaterials. Nature Communications, 2016, 7, 11329.	5.8	113
87	Multipolar Third-Harmonic Generation in Fishnet Metamaterials. ACS Photonics, 2016, 3, 1494-1499.	3.2	20
88	Multipolar Analysis of the Third Harmonic Radiation Pattern from Fishnet Metamaterials. , 2016, , .		0
89	Highly-Efficient Polarization-Insensitive Holograms Based on Dielectric Metasurfaces. , 2016, , .		0
90	Multipolar Origin of the Third Harmonic Generation from Fishnet Metamaterials. , 2016, , .		0

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91	Three-Dimensional Optical Metamaterials with Magnetic Hyperbolic Dispersion. , 2016, , .		0
92	Nonlinear Beam Shaping with Si Nanodisks. , 2016, , .		0
93	Highly Efficient Broadband Polarization Control With All-Dielectric Metasurfaces. , 2016, , .		1
94	Polarization properties of optical metasurfaces of different symmetries. Physical Review B, 2015, 91, .	1.1	27
95	Enhanced Magnetic Second-Harmonic Generation from Resonant Metasurfaces. ACS Photonics, 2015, 2, 1007-1012.	3.2	102
96	Enhancing Eu ³⁺ magnetic dipole emission by resonant plasmonic nanostructures. Optics Letters, 2015, 40, 1659.	1.7	61
97	Enhanced Magnetic Second-Harmonic Generation from Resonant Metasurfaces. , 2015, , .		1
98	Photon-spin control of quantum-dot emission with nanoantennas. , 2014, , .		0
99	Spin-Polarized Light Emission from Quantum Dots Coupled to Multipolar Nanoantennas. , 2014, , .		1
100	Polarization phenomena in periodic metasurfaces at oblique incidence. , 2014, , .		0
101	Metasurfaces inner symmetries: from square lattices to quasicrystalline layouts (presentation video). Proceedings of SPIE, 2014, , .	0.8	0
102	Nonlinear coupled-mode theory for periodic plasmonic waveguides and metamaterials with loss and gain. Optics Letters, 2014, 39, 462.	1.7	37
103	Spin-Polarized Photon Emission by Resonant Multipolar Nanoantennas. ACS Photonics, 2014, 1, 1218-1223.	3.2	75
104	Resonant metasurfaces at oblique incidence: interplay of order and disorder. Scientific Reports, 2014, 4, 4484.	1.6	57
105	Probing plasmonic electro-magnetic environment with Eu ³⁺ . , 2014, , .		0
106	Optical metamaterials with quasicrystalline symmetry: Symmetry-induced optical isotropy. Physical Review B, 2013, 88, .	1.1	32
107	Symmetry properties of metamaterials at oblique incidence. , 2013, , .		1
108	Coupled-mode theory for nonlinear plasmonic structures and metamaterials. , 2013, , .		0

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109	Properties of periodic metasurfaces versus amorphous arrangements at oblique incidence. , 2013, , .		0
110	Tunable and nonlinear fishnet metamaterials based on liquid crystal infiltration. Proceedings of SPIE, 2012, , .	0.8	1
111	Nonlinear coupled-mode theory for periodic waveguides and metamaterials with loss and gain. , 2012, , .		1
112	Spatial dispersion of multilayer fishnet metamaterials. Optics Express, 2012, 20, 15100.	1.7	33
113	Quasicrystal metamaterials: a route to optical isotropy. , 2012, , .		0
114	Manipulating second-harmonic light from semiconductor nanocrystals. SPIE Newsroom, 0, , .	0.1	1